

REMARKS

Overview:

In the Office Action under reply, all prior grounds of rejection have been repeated and the Action has now been made final. The rejections are as follows:

Claims 1-3, 6, 7, and 9 stand rejected under 35 U.S.C. § 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Bawendi et al. (U.S. Pat. No. 6,319,426, “Bawendi”);

Claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) as obvious over Bawendi et al. (U.S. Pat. No. 6,319,426) in view of Powers et al. (U.S. Pat. No. 5,162,445); and

Claim 8 stands rejected under 35 U.S.C. § 103(a) as obvious over Bawendi et al. (U.S. Pat. No. 6,319,426).

The rejections are addressed in part by the present amendments and are otherwise traversed by the arguments set forth below.

Amendments to the Claims and Claims Status:

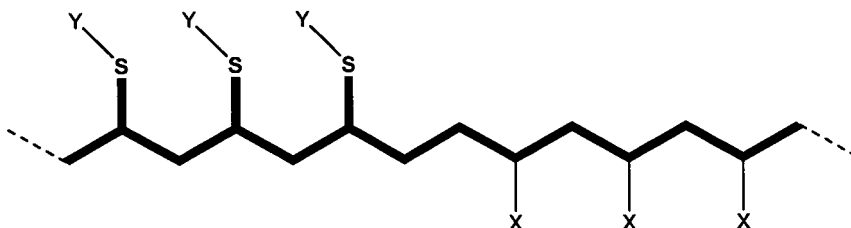
By the foregoing amendment, claim 1 has been amended to specify that the regions consist of adjacent monomers and include the limitation that a hydrophilic region is separated from the other hydrophilic regions by a non-hydrophilic region and that a hydrophobic region is separated from the other hydrophobic regions by a non-hydrophobic region. This additional limitation clarifies the scope of “region” being employed in claim 1. Support for this amendment is found in paragraphs 40 and 41 (noting that regions may consist of monomers which are or are not adjacent) and in paragraph 93 (stating that the dispersant may be a branched polymer having “a backbone that may be either hydrophobic or hydrophilic, and is substituted with both hydrophilic and hydrophobic branches”).

New claims 10-16 have been added. Claim 10 finds support in paragraph 66 of the application. Claims 11-16 find support in claims 80-85 of the parent application, which is incorporated by reference into the present application (see paragraphs 1 and 114 of the present application).

Rejections under 35 U.S.C. §102 and/or §103 over Bawendi et al.:

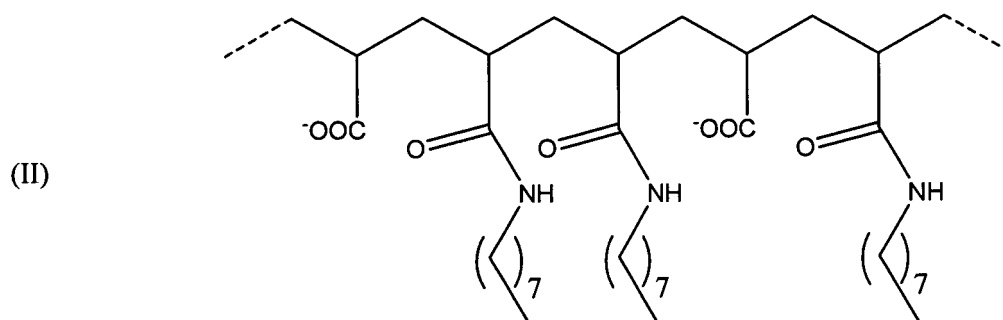
The Examiner repeated the rejection based on Bawendi, arguing that the block copolymer disclosed in column 15, lines 55-62, contains “more than two hydrophilic regions and more than two hydrophobic regions...” The amendment to the claims, requiring hydrophilic and hydrophobic regions each consisting of adjacent monomers, is believed to distinguish over the disclosure of Bawendi.

A portion of an example of the block copolymers that are disclosed by Bawendi is given by the following diagram:



In this diagram, X and Y are linking moieties and hydrophilic moieties, respectively (see column 16, lines 10-18), and S represents a spacing group that attaches each Y moiety to the polymer backbone. The hydrophobic portion of the molecule is the bold portion, which includes the polymer backbone and the spacing groups. This diagram does not qualify as the amphipathic dispersant of the claims because it has only one possible hydrophobic region, in bold, and not two or more as the claims require. With the claims as currently amended, it is not possible to view the bolded region as two or more hydrophobic regions because it cannot be split into two components such a way that the two components are separated by a non-hydrophobic region.

An example given in the current application of a suitable amphipathic dispersant is illustrated by formula (II) (see paragraph [000115] of the current application)



wherein the carboxylic acid groups and the *N*-octylamide groups are randomly spaced along the polymer backbone. The polymer illustrated by formula (II) clearly contains multiple hydrophilic regions (i.e., the carboxylic acid groups) that are separated from each other by a single non-hydrophilic region (i.e., the polymer backbone). It would also be evident to one of ordinary skill in the art that each of the octyl groups functions as a separate hydrophobic region. This is the case because the octyl groups are isolated from each other (as well as from the hydrophobic polymer backbone) via the relatively non-hydrophobic amide linking groups. Thus, structure (II), like all structures that satisfy the limitations of the present claims, has multiple hydrophobic and multiple hydrophilic regions.

For at least the foregoing reasons, Bawendi et al. fails to anticipate or render *prima facie* obvious applicants' claims. Accordingly, withdrawal of the rejection under 35 U.S.C. §102 and/or §103 is requested.

Rejections under 35 U.S.C. §103

Claims 4 and 5 stand rejected under 35 U.S.C. §103(a) as obvious over Bawendi et al. (U.S. Pat. No. 6,319,426) in view of Powers et al. (U.S. Pat. No. 5,162,445); and

Claim 8 stands rejected under 35 U.S.C. §103(a) as obvious over Bawendi et al. (U.S. Pat. No. 6,319,426).

As stated in the applicants' response to the previous office action, applicants respectfully traverse these rejections for at least the following reasons.

For reasons noted in the preceding section, Bawendi et al. fails to anticipate or render *prima facie* obvious applicants' claims since each and every feature of the claims is not disclosed or suggested. The same reasons are applicable here since nothing in the applied references suggests the missing feature required by applicants' claims. As such, claims 4, 5, and 8 are also allowable for the same reason, namely the failure of the applied references to disclose or suggest applicants' claimed feature of "two or more hydrophobic regions and two or more hydrophilic regions" with characteristics as presently claimed.

For at least the foregoing reasons, withdrawal of the above rejections under 35 U.S.C. § 103 is requested.

Conclusion

Applicants respectfully submit that the present claims are in condition for allowance. An early notice of allowance is earnestly requested.

Should the Examiner need to clarify any remaining matters, or expedite the prosecution of the subject application, a telephone call to the undersigned at (650) 251-7712 would be appreciated.

Respectfully submitted,

By:



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